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ORIGINAL ARTICLE

Knowledge of primary care nurses regarding domestic violence

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Abstract *Introduction:* Domestic violence (DV) against women has been identified as a serious public health problem. Primary care nurses usually play an important role in managing battered women. They must be equipped with the necessary knowledge, training and experience.
Objective: The aim of this work was to study the knowledge and perception of primary care nurses about DV.
Methods: This study was carried out in all primary health care centers in Kuwait. All nurses who were currently working in these centers during the study period were asked to complete a self-administered close-ended questionnaire that included personal and working conditions information. It included also knowledge about prevalence of DV, and four main aspects relevant to DV, namely deprivation, psychological, physical and sexual domains. A 5-point, Likert-scale was used

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to assess participant's answers for each item. For each participant, the scores were summed and categorized into high and low considering the median as the cutoff level.

Results: Out of 1617 nurses currently working in primary care, 988 returned the filled questionnaire with a response rate of 61.1%. The study revealed that nurses' knowledge about the prevalence of DV were poor. A large group of nurses had negative perception to DV particularly regarding deprivation aspect. Nearly all nurses agreed about statements of physical and sexual domains. Psychological items scores came in between deprivation in one side and physical and sexual aspects in the other side. After adjustment for confounding, only female gender remained as a significant factor associated with high knowledge and perception scores. About a third of the participating nurses received their knowledge and instructions about DV from scientific formal sources as medical schools, training courses and conferences. The majority of them indicated that they were willing to receive training or guidelines instructions in the different topics for management of DV in the future.

Conclusion: Overall, primary care nurses had poor knowledge regarding DV. Although female nurses are somewhat more knowledgeable about DV, many more educational activities are needed.

1. Introduction

Domestic violence (DV), ''battering,'' and ''spousal abuse'' are all terms referring to the victimization of a person by an intimate partner.[1] DV, also known as intimate partner violence (IPV), is defined as actual or threatened physical, sexual, or psychological harm by current or former partner or spouse.[2,3]

Physical abuse is defined as any behavior in which the body of the perpetrator intentionally affects the body of another person, so that there is the risk for the latter to be physically harmed as kicking, biting, threatening with knives or other weapons.[4] Sexual abuse has been defined in a variety of ways; although it is categorized as physical abuse, it makes sense to differentiate sexual abuse from other types of physical abuse. From a clinical standpoint, it refers to any unwanted sexual activity.[5] Psychological abuse essentially and significantly differs from both with respect to its intensity and to how it takes place.

It also includes isolation of the victim, induced disability due to exhaustion, weakening or incapacitation, humiliation, outrage and offenses. Other authors additionally include ''social violence'' and ''economic violence'' in the various forms of DV.[6]

Violence against women is a common problem. Worldwide population surveys among women indicated that between 10% and 50% were at some stage abused by an intimate partner.[7,8] Past or current family violence is an important and common problem experienced by women seen for medical care.[9] DV has a deteriorating influence on society by affecting victims, their children, families, and friends, as well as social and financial relationships. Abused females who have poor physical and mental health suffer more injuries and use more medical resources than non-abused females. Females who have experienced physical, sexual, or emotional violence suffer a range of health problems, often in silence. Gender-based violence is widely recognized as an important public health problem, both because of the acute morbidity and mortality associated with assault and its longer-term impact on women's health.[10,11]

Since primary care providers, including nurses, frequently are the first in the community to encounter the battered woman, they must be equipped with the necessary knowledge, training and experience to identify the problem and manage the patient properly.[12] Nursing personnel are engaged in a wide range of practical and intellectual tasks and frequent social encounters at work, and are exposed to physical, as well as social, emotional, and intellectual work demands.[13] The nurse needs to organize a coherent set of knowledge and experiences in view of this concrete situation, so that health care for women does not cause suffering and anguish.[14]

Unfortunately, no medical curricula comprehensively cover DV-related issues, such as legal rights of females and the medical consequences of DV and intervention strategies in Kuwait. To our knowledge, no collaborative training projects were carried out by different organizations. Neither clinical guidelines nor specific recommendations with regard to DV have been implemented.

There are many surveys which have assessed the knowledge, attitude, and practices regarding DV in different health care providers in developed countries.[15,16] In Kuwait, few studies have been conducted to evaluate primary health care providers' knowledge and attitude about DV.[17–20] The aim of this work was to study the knowledge of primary care nurses regarding DV.

2. Methods

2.1. Setting and design

The health care system in Kuwait is divided into five regional health authorities. Primary health care is provided by 78 centers served by family practice physicians, general practitioners, and 1617 nurses. Nurses are subjected for pre-employment training in the form of 1 week orientation program. In addition Kuwaiti nurses are subjected to 9 months rotation program in different specialties. Also, nurses have the opportunity for on-the-job training at central and local health region levels.

The present study is a part from a larger study that was conducted to explore the knowledge, perception and attitude of primary health care providers in Kuwait toward DV. It was carried out during May–July 2010 in all primary health care centers in the five health regions in Kuwait. The study design is a cross-sectional descriptive one. All 1617 currently registered and working nurses were asked to participate in the study. Local ethics committee approval was obtained for the study.

2.2. Data collection

A self-administered close-ended questionnaire was used to obtain data from the participants. It was derived from other published studies dealing with the same topic as well as from our own experience and has been validated by the authors before use.[21] It included socio-demographic data (age, gender, nationality, marital status, education, job position, years of experience, income), nurses' knowledge regarding DV, sources of knowledge, and topics to be included in future workshops.

Apart from personal information and prevalence of DV, the questionnaire included 23 items that are relevant to a number of DV facets. We divided the 23 items into four domains of DV namely deprivation domain (10 items), psychological domain (4 items), physical domain (6 items), and sexual relationship (3 items).

Nurses indicated their degrees of relative knowledge for each item using a 5-point, Likert-scale ranging from 1 = strongly disagree (not violence through) to 5 = strongly agree (severe violence). High scores for definition of DV indicated that these statements were considered as more severe violence. Low scores showed that the respondents were to perceive the statements less likely as violence. For each participant, the scores were summed so as to show each participant's knowledge level ranging from 23 to 115. Participants were then categorized into high and low scores considering the median as the cutoff level.

The administrative time for the questionnaire was mostly 10 min. Participation was optional and data collection was anonymous.

Table 1 General characters of participating nurses.

Characteristics	No.	%
Age		
< 30	239	24.2
30–39	553	56.0
⩾ 40	196	19.8
Gender		
Males	179	18.1
Females	809	81.9
Nationality		
Kuwaiti	88	8.9
Arabic	201	20.3
Non-Arabic	699	70.7
Marital status		
Single	132	13.4
Married	838	84.8
Widowed/divorced	18	1.8
Qualification		
Bachelor/Board	848	85.8
Master/PhD	140	14.2
Experience (year)		
< 5	244	24.7
5–9	529	53.5
> 10	215	21.8
Job		
Assistant nurse	14	1.4
Nurse	306	31.0
Nurse staff	656	66.4
As head nurse/head nurse	12	1.2
Monthly income (KD)		
< 1000	963	97.5
> 1000	25	2.5
Total	988	100.0

2.3. Statistical analysis

Frequency and percentage were initially presented to describe our sample followed by comparative analyses between nurses with high and low knowledge scores. Comparison was based on a series of univariate analyses using the Chi-square test (χ^2) for categorized variables. For the possible confounding effect of the variables, multiple logistic regression analysis was used for the final analysis to predict factors which would be associated with high DV knowledge score. In multivariate analysis, the associations between exposures and outcome were expressed in terms of odds ratios (OR) together with 95% confidence intervals (95% CI). All the explanatory variables included in the logistic model were categorized into two or more levels (R = reference category): age in years: $<30^{(R)}$, $\geqslant 30$; gender: male$^{(R)}$, female; nationality: Kuwaiti$^{(R)}$, Arabic, non-Arabic; marital status: unmarried$^{(R)}$, married; qualification: bachelor/board$^{(R)}$, master, doctorate; experience in years: $<5^{(R)}$, 5–9, $\geqslant 10$, job: assistant nurse/nurse$^{(R)}$, nurse staff, as head nurse/head nurse; monthly income (KD): <1000, $\geqslant 1000$. Statistical significance was set at 0.05. Data were analyzed using the SPSS software package for social sciences; Version 17.0.

3. Results

Out of 1617 registered nurses currently working in primary health care, 988 returned the filled questionnaires with a response rate of 61.1%.

Demographic data and working conditions were presented in Table 1. The age of the participants ranged from 23 to 64 years (mean = 34.8 ± 7.5). Of the participating nurses, 18.1% were males, 8.9% were Kuwaiti, 84.8% were married, and 14.2% had higher degree than bachelors. One thirds of them were assistant nurse or nurse, 21.8% had professional experience $\geqslant 10$ years (mean = 10.2 ± 7.4), Almost all of them (97.5%), had monthly income < 1000 KD.

Table 2 demonstrates the nurses' knowledge about the prevalence of DV in Kuwait, other Arab countries and over the world. Only 20.5% of nurses indicated that the prevalence in Kuwait is > 30%, whereas the remaining nurses either did not know or indicated that the prevalence is < 30%. Regarding the prevalence of DV in other Arab countries, 36.3% of nurses did not know, and 22.3% indicated that the prevalence is more than 30%. The corresponding figures for the prevalence over the world were 34.8% and 28.0%.

Considering each item of DV, Table 3 illustrates the proportion of agreement (strongly agree/agree) among participants about definition of DV. Regarding deprivation, the proportion of participants who agreed about considering statements as types of DV were 46.8% for "keeping women from seeing her friends", 58.4% for "restricting women from contacting with family relatives", 49.4% for "insisting to know where are women all the times", 44.3% for "ignoring or treating women indifferently", 38.85% for "getting angry when women talk with other men", 42.3% for "suspicion of

Table 2 Prevalence of domestic violence in opinion of the participating nurses.

Prevalence	<1%	1–5%	6–10%	11–20%	21–30%	⩾30%	Do not know
In Kuwait	2.9	3.9	11.2	12.4	14.2	20.5	34.7
In Arab countries	2.6	1.7	7.7	14.7	14.7	22.3	36.3
All over the world	1.2	3.1	6.5	11.4	14.9	28.0	34.8

Data are presented as raw percentage (n = 988 participants).

Table 3 Participating nurses' perception of statements as types of domestic violence.

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean score
Deprivation/neglect						
Keeping women from seeing her friends	16.0	16.7	20.4	18.8	28.0	3.3 ± 1.4
Restricting women from contacting with family relatives	13.4	18.2	10.0	23.4	35.0	3.5 ± 1.5
Insisting to know where are women all the times	10.0	17.4	23.2	26.0	23.4	3.4 ± 1.3
Ignoring or treating women indifferently	20.1	21.7	13.9	21.6	22.8	3.1 ± 1.5
Getting angry when women talk with other men	15.6	26.0	19.6	17.2	21.2	3.0 ± 1.4
Suspicion of unfaithfulness of women	22.7	22.8	12.2	14.6	27.7	3.0 ± 1.6
Asking permission before seeking health care	16.5	20.9	18.5	13.0	31.2	3.2 ± 1.5
Men have the right to enforce women to wear suitable clothes	12.8	22.0	22.6	17.1	25.6	3.2 ± 1.4
Obligation of women to share in the house expenses	23.8	22.7	24.9	13.2	15.5	2.7 ± 1.4
Men should be the decision makers in home management	16.7	24.1	28.8	13.1	17.2	2.9 ± 1.3
Psychological						
Insulting women and make them feel bad about themselves	15.5	18.4	5.4	26.5	34.2	3.5 ± 1.5
Humiliating women in front of other people	13.3	18.1	5.0	19.4	44.2	3.6 ± 1.5
Intimidating women on purpose	10.2	15.6	3.4	25.1	45.6	3.8 ± 1.4
Threatening or hurting women	9.1	11.2	3.7	25.4	50.5	4.0 ± 1.4
Physical						
Slapping or throwing women with something that could hurt	0.0	0.0	0.7	27.7	71.6	4.7 ± 0.5
Pushing or shoving women	0.0	0.5	2.1	31.1	66.3	4.6 ± 0.6
Hitting with a fist	0.0	0.1	0.5	30.8	68.6	4.7 ± 0.5
Kicking, dragging or beating women	0.0	0.0	0.3	29.0	70.7	4.7 ± 0.5
Chocking or burning women	0.0	0.0	0.3	26.8	72.9	4.7 ± 0.5
Threatening with a knife, stick, gun	0.0	0.2	0.7	30.2	68.9	4.7 ± 0.5
Sexual						
Forcing women to have sex against their will by the husband	5.0	1.1	0.1	51.5	41.5	4.2 ± 0.9
Raping by foreigners	0.0	0.0	0.2	26.6	73.2	4.7 ± 0.5
Sexual harassment	0.0	0.1	1.5	28.0	70.4	4.7 ± 0.5

Data are presented as raw percentage (n = 988 participants).

unfaithfulness of women'', 44.1% for ''asking permission before seeking health care'', 42.7% for ''men have the right to enforce women to wear suitable clothes'', 28.6% for ''obligation of women to share with their money in the house expenses'', and 30.3% for ''men should be the decision makers in home management''. The mean score for deprivation aspect ranged from 2.7 ± 1.4 to 3.5 ± 1.5 out of five.

A higher proportion of the participants agreed about the psychological statements, with higher scores than those of the deprivation ones. About two thirds of the physicians were considering ''insulting women and make them feel bad about themselves'' as a type DV, 63.7% about ''humiliating women in front of other people'', 70.7% about ''intimidating women on purpose'', and 75.9% about ''threatening or hurting women''.

Higher mean scores were recorded for physical and sexual items than for deprivation and psychological items. Mostly all of the nurses agreed about the statements regarding all physical and sexual items with the highest recorded scores.

Table 4 shows that higher levels of perception and knowledge scores were significantly reported among female, Arabic non-Kuwaiti, nurses, with lesser years of experience. However, after adjustment for confounding only female gender remained as a significant factor associated high knowledge and perception score.

Table 5 describes respondents' sources of information regarding DV. Only 33.6%, of the respondents received their knowledge mainly from medical schools, 33.2% in training workshops, 29.6% in conferences. Personal experience and media were the most common sources of information. Table 6 showed that the majority of the participating nurses (>80%) indicated that they were willing to receive training or guidelines instructions in the different topics for management of DV in the future.

Table 4 Personal factors affecting knowledge and perception score of participating nurses.

Variables	Knowledge and perception score				Significance
	Low (n = 491)		High (n = 497)		
	No.	%	No.	%	
Age (years)					
< 30	115	23.4	124	24.9	χ^2 = 1.18
30–39	272	55.4	281	56.5	P = 0.55
⩾40	104	21.2	92	18.5	
Gender					
Male	120	24.1	59	12.0	χ^2 = 24.49
Female	377	75.9	432	88.0	P < 0.001
Nationality					
Kuwaiti	44	9.0	44	8.9	χ^2 = 14.56
Arabic	76	15.5	125	25.2	P = 0.001
Non-Arabic	371	75.6	328	66.0	
Marital status					
Unmarried	75	15.3	75	15.1	χ^2 = 0.01
Married	416	84.7	422	84.9	P = 0.94
Qualification					
Bachelor/Board	422	85.9	426	85.7	χ^2 = 0.01
Master/PhD	69	14.1	71	14.3	P = 0.92
Experience (years)					
< 5	105	21.4	139	28.0	χ^2 = 6.56
5–9	280	57.0	249	50.1	P = 0.04
⩾10	106	21.6	109	21.9	
Job					
Assistant nurse/nurse	136	27.7	170	34.2	χ^2 = 4.89
Nurse staff/as head nurse	355	72.3	327	65.8	P = 0.03
Monthly income (KD)					
< 1000	479	97.6	484	97.4	χ^2 = 0.03
⩾1000	12	2.4	13	2.6	P = 0.86

Table 5 Sources of nurses' knowledge about domestic violence.

Source of knowledge	Much	Little	Never
Medical school	33.6	45.2	21.2
Practice	39.7	37.6	22.8
In job training workshop	33.2	32.5	34.3
Personal experience with families	53.8	30.1	16.1
Conferences	29.6	40.9	29.6
Literatures and books	42.1	41.2	16.7
Media	73.5	20.9	5.7

Data are presented as raw percentage (n = 988 participants).

4. Discussion

This study provides important information about current knowledge and perception of primary care nurses toward DV, which can be used for planning future implementation for improving care in primary care settings.

The response rate in the current study was 61.1% which is higher than that reported in many other similar studies. This rate is considered acceptable for a self administered questionnaire. The corresponding figure was 57% in Sweden,[22] 59.78% in Canada.[23] This could be explained by the increasing interest of nurses working in Kuwait for improving their knowledge that subsequently increases nurses performance for ensuring the quality of care and health provision of battered women. However, the response rate in this study was lower than that recorded in other studies.[24,25] The non-response could be attributed to the lack of time and work load.

The findings of the present study showed that the awareness of the prevalence of DV among primary care nurses is poor in agreement with other studies in different countries.[24,26,27] The majority of participants believed that the prevalence of DV to be low. In a similar study that was conducted in the US, 70% of nurses believed that DV was rare or very rare.[24] Shortage of nurses' knowledge and perception of DV have been identified as barriers to effective clinical responses by medical professionals. Sugg et al., in his study, stated that the identification and management of persons being abused in clinical practice is low, with estimates that only 7–25% of cases are identified and 60–90% of patients are inadequately managed.[24] Worldwide, DV is considered as one of the most frequent forms of gender-based violence.[28] In various European countries the lifetime prevalence of violence in intimate partnerships is reported to be between 10% and 36%.[22] In Asia, there are data on intimate partner violence (IPV) from India, Bangladesh, Thailand, and Cambodia because they have been included in multi-country studies on IPV conducted by international organizations.[10,29] Those studies indicated that the prevalence of IPV

Table 6 Topics that nurses prefer to be included in training workshop and medical guidelines about domestic violence.

Topics	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Definition of domestic violence	1.5	3.4	12.0	30.3	52.7
Background facts and information	1.2	4.9	9.7	31.2	53.0
Features associated with domestic violence	2.5	2.8	13.1	32.6	49.0
Assessment questions	2.0	2.5	10.9	33.2	51.3
Key aspects of history taking	2.0	3.0	12.6	34.8	47.6
Advice on accurate record keeping	1.6	7.4	7.9	34.2	48.9
Legal overview, including role of police	1.5	10.0	13.2	33.5	41.9
Review of safety issues for women/staff	1.8	7.4	5.7	37.6	47.6
Information about community agencies	1.7	3.9	8.4	34.0	51.9
Selected bibliography	3.6	1.6	16.8	28.8	49.1

Data are presented as raw percentage (n = 988 participants).

varies between 18% in Cambodia and 40% in Bangladesh. In India, the prevalence of IPV is 19%, and in Thailand is 34%. However, low-income Asian countries have not been included in such studies.[30]

Haggblom et al.[31] stated that nurses' knowledge, beliefs, and practice were found to be unsystematic and had drawbacks, suggesting an in-service training to be set up. DV is a complex area in which to undertake research. Consequently, studies exhibit a diversity of design and often focus on selected populations, making comparison difficult and of little value. Definitions of DV vary considerably, including different personal relationships and different degrees or types of violence. This particularly affects the results of prevalence studies.[32] Considering socio-ethical values in Kuwait society, there is no reliable and precise statistical data about DV.

The domains of the present study were nurses' knowledge and perception regarding different aspects of DV as deprivation, psychological, physical and sexual effects of battered women. In spite of their relatively higher level of education, a large group of nurses had negative perception to DV particularly regarding deprivation and psychological aspects. Two nurses may express the same knowledge and perception score of DV but for entirely different reasons. Therefore, to understand these differences, it is useful to measure their knowledge with specific aspects of DV. In the present study, the lowest scores were recorded in deprivation aspect, as a subgroup of psychological abuse, particularly in considering ''obligation of women to share in the house expenses'' and ''men should be the decision makers in home management'' as types of DV. Other items of deprivation were indicated as types of DV by 58.4% or less of nurses.

Regarding psychological items, the lowest score was recorded considering the statement ''insulting women and making them feel bad about themselves''. Nearly all the nurses agreed about physical and sexual statements. Psychological items came in between deprivation on one side and physical and sexual aspects on the other side. This may be due to the fact that the term psychological abuse is the least clearly defined among the various types of abuse.[16]

Health care providers possess certain opinions and prejudices based on their own upbringing culture and religious beliefs. The answers of nurses may reflect their own beliefs rather than their knowledge about definition of DV. Traditional beliefs regarding the family privacy, family unity and gender role was found to have posed difficulties to nurses in their perception of DV.[33]

Although minor psychological aggression is the most common form of partner abuse, the perpetration of this type of violence is less stigmatizing because the damaging effects are not observed immediately.[34] Severe sexual coercion is rare, and most couples report minor sexual coercion only. This is defined by items such as, ''forcing women to have sex against their will by the husband'', ''raping by foreigners'', ''sexual harassment''.[35]

Several factors have been identified to be associated with nurses' knowledge and perception of DV in other countries. These factors include personal characteristics and working conditions. In the present study, some of these factors were found to be associated with the score level. However, after adjustment for confounding, only gender was proven as an independent associated variable. According to the self declarations of the participating nurses, females reported significantly more positive perception and knowledge scores particularly regarding psychological and deprivation aspects. This might be due to perceiving of gender role by men and their responsibilities within the family. Also, cultural and traditional beliefs of male nurses might also affect their perception of DV. Research showed females to be more interested in psychological problems and female patients to give more psychological information to female health providers.[36] Some studies on partner abuse found female health providers to be more involved with victims, showing more commitment and adequate response compared to males, where others found no effect of gender.[37,38]

The results of this study indicated that about a third of the participating nurses received their knowledge and instructions about DV from scientific formal sources as medical schools, training courses and conferences. This goes in accordance with other studies.[39]

Primary care professionals education may be far from achieving the recommendation that all relevant professional schools include education about DV.[39] In addition, the majority of nurses in the present study felt that they would benefit from additional instructions in DV identification and intervention. This could be explained by the increasing interest of nurses working in Kuwait for improving their knowledge that subsequently increases their performance for ensuring the quality of care and health provision of battered women. Also, as the majority of the study population was females, this would explain the increased interest of nurses for further education and training regarding DV against women.

The efficiency of training programs in managing victims of DV has been shown in different studies.[40,41] According to the

results of previous studies, the content, frequency, and timing of training are as important as the presence of training.

Richardson et al. concluded that suitably targeted educational seminars can improve knowledge, and management in the field DV, printed educational material is ineffective and that the content of courses needs to be tailored according to the participants pre-existing knowledge.[42]

When the content of the training program is considered, the relationship between violence and reproductive health problems and chronic diseases should be emphasized. Since lack of knowledge is a prominent feature, an initiative is needed for developing curricula for both graduate and postgraduate training programs. Training of nurses might have a dramatic effect on diminishing the gender effect on the justification of violence, creating positive attitudes toward the issue and realizing effective interventions for DV victims.

The work presented here represents an initial effort to provide basic information about the knowledge and perception of nurses about victims of DV. Future DV guidelines and protocols may increase the identification of women experiencing DV, but without ongoing commitment to their implementation and staff training, identification drops sharply. The potential value of guidelines lies in the standardization of good practice, which, in the absence of intervention studies around DV, must be based on local consensus rather than evidence of effectiveness. This consensus will need to embrace society and police as well as health care services.[32]

We apologize for some limitations in the present study. It must be acknowledged that assessment of knowledge in our survey was limited to some indicators of awareness, perception and familiarity, while the survey did not entail direct questions on risk factors, signs, symptoms, and co-morbidity patterns relating to DV as an issue of knowledge. Also, we did not make an attempt to assess nurses' knowledge of screening strategies. Several models have indeed been developed to assess health care provider characteristics and training needs in relation to DV. Of particular interest are those models constructed through the use of psychometric techniques, which have resulted in some refined tools that may guide future DV policy, interventions and training programs.[14,43] Many factors were not taken into account and should be considered in future studies. Another limitation of the study was its cross-sectional nature that creates difficulties in ascertaining causality. However, our results are consistent with many other studies. Also, demographic information about non-respondents was not made available for comparison. Finally, as the study was limited to the primary care setting, results may not be generalized to other health care settings.

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